

Exploring Ways to Reduce Swimming Fatalities

**Beach Track
Great Lakes Beach Association**

Presenters:

- Brent Schleck, NOAA Coastal Storms Program
- Todd Breiby (Gene Clark), WI Coastal Management
- Elizabeth LaPorte, University of Michigan



NOAA Coastal Storms Program

(Est. 2011)

Four focus areas

- Improving beach hazard observations, modeling, risk communication;
- Addressing impacts of stormwater on natural resources;
- Enhancing shoreline mapping and management; and
- Promoting hazard mitigation and community resilience

Hazard Communication

- Build upon past investments
 - GLRI – ParkPointBeach.org
 - Coastal Zone Management and Sea Grant Programs
 - NGOs
 - Great Lakes Commission
 - NWS in the Great Lakes
- Coastal Storms Program
 - Risk perception research
 - myBeachCast mobile app
 - Communication best practices
 - Observation equipment



Source: GLOS



- White: Sea Grant Program Development projects
- Blue: Beach safety equipment distribution locations
- Green: CSP Small Grants projects
- Purple: GLOS Buoy locations

Challenges

Few lifeguards, limited equipment and no regional effort to communicate

Similar issues across the Great Lakes region:

- Lack of resources
- Interest among Sea Grant and CZM programs to collaborate
- Willingness to focus on both equipment selection/deployment & common messages leading to a comprehensive public outreach campaign

Regional Response

Apply best practices and lessons learned, MI, WI, MN & CSP

— *Implementing Dangerous Currents Best Practices Project*

Focus: Equipment and Outreach (MI, WI and IL/IN +)

- **Extend water safety efforts:** Focused on GL & equipment (pilot beach safety kits); and outreach (key messages tailored for the GL)
- **Leverage CZM** and develop stronger partners in ea. state

Equipment

Data Guided Actions & Outputs

Incident Data – NWS:

- Data about beach locations with fatalities and rescues helped determine target locations for equipment

www.dangerouscurrents.org

Also Considered:

- Great Lakes Surf and Rescue Project
- Estimated beach usage and visitation



Importance of Working Groups

Each state leveraged working groups with stakeholders (agencies, park staff, first responders, others) - outputs

- *Inform on dangerous currents and best practices:* opportunity to increase awareness
- *Vetting selection of equipment* items and locations for equipment deployment – helpful to have input to ID key areas
- *Discussion about specific needs:* emergency rescue (throw rings, bags and tubes) and public safety (life jackets)
- *Discussion about managing equipment:* tagging, storage, loaner programs
- *Established contacts* to leverage for future efforts

Equipment Selection

Exact specs
for each
equipment
item

Provided geo
data for each
state to MI-
CZM

Water Safety Equipment (Coastal Storms Regional Project: Implementing Dangerous Currents Best Practices):								
Items:	Youth (Loaner) Life Jacket - Type II Near-shore Vest (USCG-approved)	Adult (Rescue) Life Vest - Type I, Offshore, 22 lbs buoyancy, face-up design (USCG-approved)	Rescue Throw Ring Buoy, 24 in., orange, 35 lb. buoyancy, grab rope handles (USCG approved) -- - also need rope - sold separately	Rescue Tube, or Rescue Can (NOT rated for buoyancy or approved by USCG or USLA)	Rescue Throw Bags with 75 ft. rope, floating second chance ball	Rescue Board with grab handles (durable foam)	Alert Whistle - Water Safety, high decible, 3-chamber, plastic, pealess, 115 dB, approved by USLA - used by first responders	
Vendors:	West Marine: Type II Buoyant Vest (50-90 lbs), Mfg: Kent, Model# 11246, see: http://www.westmarine.com/buy/kent--type-ii-near-shore-buoyant-vests--P008_240_001_004	Port Supply: Mfg: Stearns Crew Mate Flotation Vest, SKU# 8821282, see: https://www.portsupply.com/webapp/wcs/stores/servlet/ProductDisplay?catalogId=10001&storeId=11651&partNumber=8821282&langId=-1	West Marine: Cal June Type IV Ring Buoy, orange, 35 lb. buoyancy, with reflective tape ----- Alternative to compare pricing: Rescue Gear (free shipping) -- but need to compare exact product	To be Determined	Feld Fire: RQ3 Ultimate "No Knot" Throwbag, Item# BG3144, see: http://www.feldfire.com/search.asp?keyword=BG3144&www.x=0&www.y=0	Feld Fire --- or --- Rescue Gear: Mfg: Carlson - River Rescue Board, 4ft. Long, grab handles, Item# BD1655, see: http://www.feldfire.com/Carlson-River-Rescue-Board_p_1806.html	Fox 40 Classic, red, http://www.kiefer.com/fox-40-classic-whistle-products-199.php?page_id=166&gclid=COPVyObMpcMCFUgOwwodPkwAHQ	
Order by State (below)								
MI	233	84	116	28	86	26	150	
IL/IN	20	43	24	25	35	5	150	
WI	39	28	76	8	19	3	150	
OH	9	0	3	0	3	0	0	
MN	10	10	10	0	10	1	0	
Total Quantity:	311	165	229	61	153	35	450	
Est. Cost Per Piece:	\$8.00	\$55.00	\$60.00	\$42.00	\$48.00	\$400.00	\$4.95	
Est. Total Item Cost:	\$2,176.00	\$5,005.00	\$10,620.00	\$2,394.00	\$4,620.00	\$8,800.00	\$1,485.00	\$
hi i						bl /	bl /	



Wisconsin State Working Group

- Concurrent effort: WI Coastal Beaches Working Group
- Members: WCMP, UW Sea Grant, NOAA CSP, NWS, WDNR, UW-Oshkosh, local health and parks departments
- Role:
 - Review identified beaches
 - Review equipment for each beach
 - Develop equipment distribution plan
 - Identify equipment maintenance responsibilities
 - Increase awareness of dangerous currents www.currentsmart.org
 - Identify additional resources to expand project in state
 - Integrate project with Wisconsin's overall beach efforts

Safety Equipment Deployment in Wisconsin

Wisconsin Beach Locations for Requested Water Safety and Rescue Equipment and targeted public outreach materials - Implementing Dangerous Currents Best Practices, Coastal Storms Project									
Beach Name	Municipality	County	State	Rescue Throw Ring	Rescue Throw bag	Adult Life Vest	Youth Life Jacket	Carlson Rescue Board- 4 Ft.	Lifeguard Rescue Tubes***
Bayview Beach	Ashland	Ashland	WI	2	1	2	5	0	2
Maslowski Beach	Ashland	Ashland	WI	2	0	0	0	0	0
Kreher Beach	Ashland	Ashland	WI	1	0	0	0	0	0
6th Avenue Beach	Ashland	Ashland	WI	1	0	0	0	0	0
Oredock	Ashland	Ashland	WI	0	0	3	5	0	0
Big Bay State Park (1 beach)	N/A	Ashland	WI	2	1	1	1	0	0
Newport State Park (5 beaches)	N/A	Door	WI	5	1	1	1	0	0
Peninsula State Park (1 beach)	N/A	Door	WI	2	1	1	1	0	0
Potawatomi State Park (2 beaches)	N/A	Door	WI	3	1	1	1	0	0
Rock Island State Park (1 beach)	N/A	Door	WI	2	1	1	1	0	0
Whitefish Dunes State Park (1 beach)	N/A	Door	WI	2	1	1	1	0	0
Point Beach State Forest (1 beach)	N/A	Manitowoc	WI	3	1	1	1	0	0
Doctors Park Beach	Fox Point	Milwaukee	WI	1	0	0	0	0	0
Bradford Beach	Milwaukee	Milwaukee	WI	7	1	5	10	1	0
McGriley Beach	Milwaukee	Milwaukee	WI	2	0	0	0	0	0
South Shore Beach	Milwaukee	Milwaukee	WI	2	0	0	0	0	0
Bender Park Beach	Oak Creek	Milwaukee	WI	1	0	0	0	0	0
Atwater Beach	Shorewood	Milwaukee	WI	3	1	3	5	0	0
Grant Park Beach	South Milwaukee	Milwaukee	WI	2	0	0	0	0	0
Big Bay Beach	Whitefish Bay	Milwaukee	WI	1	0	0	0	0	0
Harrington State Park (4 beaches)	N/A	Ozaukee	WI	8	1	1	1	0	0
North Beach	Port Washington	Ozaukee	WI	0	1	0	0	0	0
South Beach	Port Washington	Ozaukee	WI	0	1	0	0	0	0
North Beach and Zoo Beach	Racine	Racine	WI	4	5	4	4	0	8
Samuel Myers Park Beach	Racine	Racine	WI	1	0		0	0	0
Kohler Andree State Park (4 beaches)	N/A	Sheboygan	WI	8	1	1	1	0	0
Deland Park Beach	Sheboygan	Sheboygan	WI	2	0	1	0	1	0
King Park Beach	Sheboygan	Sheboygan	WI	0	0	1	0	1	0
Total				67	19	28	38	3	10

Lake Michigan and
Lake Superior beaches

State and local public
beaches

Mostly unguarded

165 pieces of safety
equipment

41 coastal beaches

1 coastal structure

7 of 15 coastal counties

Leveraged Resources

- University of Wisconsin-Oshkosh
 - Purchased additional safety equipment to deploy at four beaches in Door County
 - Assisted communities in constructing rescue stations
- WI Coastal Beaches Working Group
 - Incorporated into working group objectives = sustainability at the state level
 - Address multiple types of signage at beaches, flag system
 - Identify resources to replace loss or damaged equipment, deployment of equipment to additional beaches

Equipment Outcomes



More than 1,875 pieces of equipment were distributed in six Great Lakes states, with 1,700 in IL, IN MI & WI

- 510 life vests + 760 rings, bags, boards & tubes
- Sea Grant and Coastal Management staff facilitated deployment in collaboration with working groups and partners

Outreach

Challenge:

A Variety of Water Safety Messages & A Lack of Consistency



Strategy

NWS Data was used to:

- **Assess risky behavior** (e.g., jumping off piers, swimming in high wave conditions)
- *Determine Targeted Groups:* Youth, adults

Multi-faceted: Consider what to do: (1) In an emergency, (2) While at the beach, and (3) Before going to the beach

- *Deliverables:* Media outreach, video, animations, social media campaign (FaceBook, Google, Twitter) – all using key messages vetted by scientists, first responders, and outreach professionals



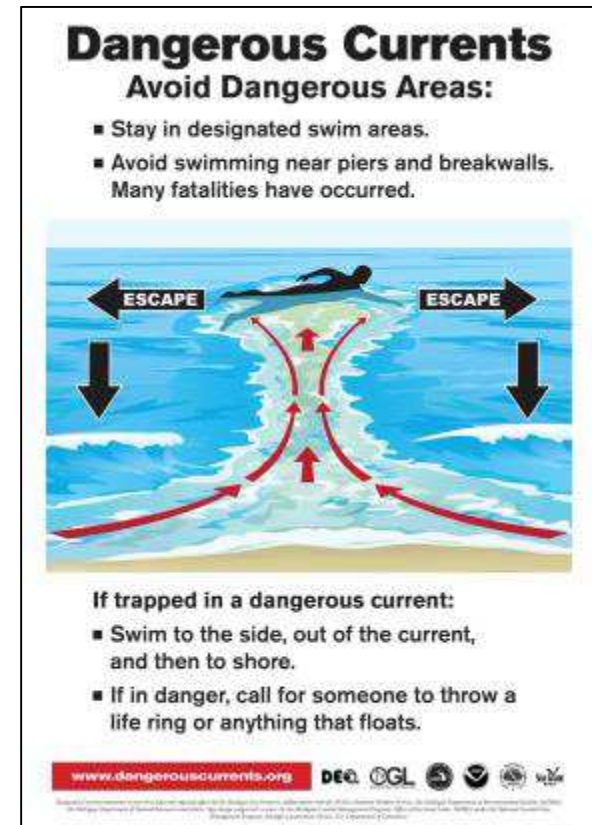
Message Comparison:

New Approach Targeted for Great Lakes

Key Differences:

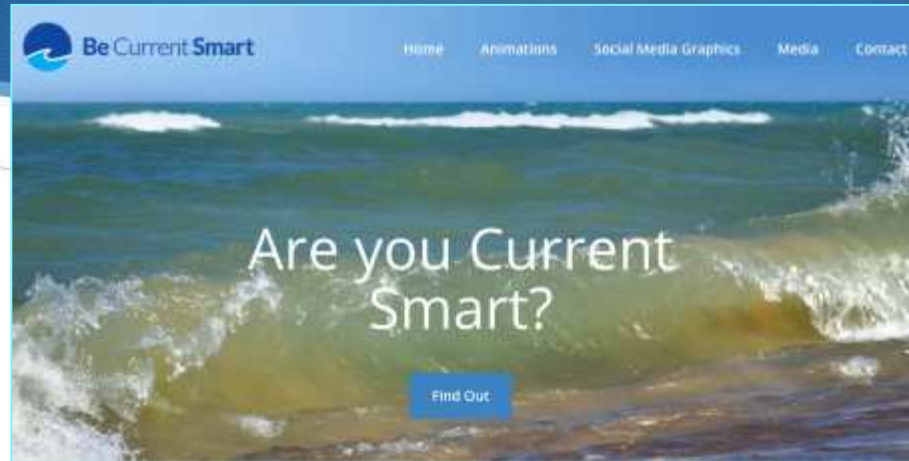
Left: Rip Only
(NOAA)

Right: New, multiple hazards, based on social science, - clearer diagram, revised message



Be Current Smart

Regional Campaign



First GL regional water safety campaign

- Science-based (NWS)
- Multi-media
- Targets: young men & parents

6 Messages

- Three Steps to Safety
- Be a Water Watcher
- Steer Clear of the Pier
- Stay Dry When Waves are High
- Shoreline Rescue
- Heed Warning Flags

CurrentSmart Outputs/Results

- Features: Series of 6 video animations (YouTube, 2,400)
- Social media: Free graphics of six messages (NWS, SG, Parks)
- VNRs: Media & educational

Video news releases



Includes information on each warning flag.



CurrentSmart Outputs/Results

Twitter



- 💧 Pay for engagement (clicks), not ad/tweet views
- 💧 430,148 impressions (views)
- 💧 4,716 engagements (clicks)
- 💧 Devices: phones or tablets

Message	Engagements	Click-through rate
Shoreline Rescue	810	1.19%
Three Steps to Safety	784	0.72%
Be a Water Watcher	775	0.61%
Rock the Jacket	586	0.54%

CurrentSmart Outputs/Results

FaceBook

- 💧 News Feeds
- 💧 3rd party mobile apps
- 💧 GLSGN & Others Posts

Google

- 💧 Keyword Search:
Current Smart campaign ad
top of results: “Are you
current smart?”



Weather!

DangerousCurrents.org

Parent to CurrentSmart website, & includes:

- Diagrams & descriptions
- Classroom lessons
- Targeted messages: Parents
- Research summary
- Resources (publication and sign templates)



To Come - 2016

Develop a sustainability plan to enhance shoreline mgmt., hazard mitigation and community resilience:

- Connect working groups in the region
- Leverage funding, knowledge, lessons learned

Distribute additional equipment and new publications to targeted coastal locations & partners

Partners:

Academic, State & Federal Gov., First Responders, Beach Managers & Others



Wisconsin:
Sea Grant, UW
& Coastal Management

Michigan:
Sea Grant, U-M & MSU,
& Coastal Management

Illinois & Indiana:
U-I & Purdue,
IL & IN Coastal
Management



NOAA:
NWS (GL Region) &
Coastal Storms
Program

Consulting:
OH & MN Sea Grant